# IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants: D'Ausilio, et al.

Examiner: Swiatek, Robert P.

Serial No.: 10/779,869

Group Art Unit: 3643

Title:

In Orbit Space Transportation

& Recovery System

Filed:

17 February 2004

## CERTIFICATE OF MAILING UNDER 37 C.F.R. SECTION 1.8

The undersigned hereby certifies that this document is being deposited with the United States Postal Service in accordance with the provisions of 37 CFR Section 1.8 on the date indicated below and is addressed to The Commissioner for Patents, Mail Stop Non-Fee Amendment, P.O. Box Alexandria, Virginia 22313-1450.

Thomas N. Giacherini, Registration No. 31,075

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# THIRD DISCLOSURE STATEMENT

The Commissioner for Patents Mail Stop Non-Fee Amendment P.O. Box 1450 Alexandria, Virginia 22313-1450

Sir:

The Applicants submit this Third Disclosure Statement in accordance with 37 CFR Sections 1.56, 1.97 and 1.98 to disclose the results of a search that was conducted by the Applicants in May of 2005. A completed PTO Form-SB/08A&B accompanies this Third Disclosure Statement.

## **DISCLOSURE DOCUMENTS**

#### Document 3A

Lenard- Interstellar Rendezvous Missions Employing Fission Propulsion System describes the use of fission propulsion for interstellar missions.

### Document 3B

Lenard- Recent Progress in Silicon-Based MEMS Field Emission Thrusters describes Micro-Electro-Mechanical Systems Field Emission Thrusters.

#### Document 3C

Godfroy- Realistic Development and Testing of Fission Systems at a Non-Nuclear Testing Facility

describes the experimental facilities and equipment used for performing resistance heated tests.

#### Document 3D

Lenard-Technology Needs for Asteroid and Comet Trajectory Deflection of a Tunuska-Sized Object Using Fission Propulsion

describes the requirements for a fission propulsion system for deflecting an asteroid.

#### Document 3E

Lipinski- A Gas Cooled Reactor Surface Power System describes a power system for a human outpost on Mars.

## Document 3F

Lipinski- Small Fission Power Systems for NEP describes two nuclear electric propulsion power system configurations.

## Document 3G

Lipinski- Small Fission Power Systems for Mars describes a surface power system for a mission on Mars.

## Document 3H

Lipinski- NEP for a Kuiper Belt Object Rendezvous Mission
describe nuclear electric propulsion for a rendezvous mission with Kupier Belt Objects.

### Document 3I

Lipinski- Fission-Based Electric Propulsion for Interstellar Precursor Missions describes technology options for a fission-based electric propulsion system for interstellar precursor missions.

## Document 3J

Lenard-Power Systems Requirements and Concepts for a Commercially Viable Lunar Base Architecture

describes the first phase of a phased strawman commercial lunar base concept.

#### Document 3K

Lipiniski- A Fission-Powered Interstellar Precursor Mission describes an interstellar precursor mission.

#### Document 3L

Lenard- Fission Electric Propulsion with MagSail for Interstellar Rendezvous Missions describes the incorporation of the MagSail concept with fission electric propulsion.

# Document 3M

Lenard- Technical Aspects of a Commercially Viable In-Space Transportation System describes an in-depth study and evaluation of a commercially-viable in-space transportation system. (Abstract only- full paper was never submitted or published.)

#### Document 3N

Ortiz- A Cost Analysis for a Nuclear Space Tug

describes an investigation of the cost effectiveness of using a nuclear thermal propulsion engine to transfer payload from a low Earth orbit to a geosynchronous Earth orbit.

## Document 3O

Early- Reusable Space Tug Concepts describes a space tug transportation system.

## **CONCLUSION**

The Applicants submit that none of the documents described above disclose the Invention as claimed in the present Patent Application, as revised by the First Preliminary Amendment submitted by the Applicants. A substantive First Office Action has not yet issued for the Present Application. In accordance with 37 CFR Section 1.97(b)(3), the Applicants believe that no fee is required to submit this Third Disclosure Statement.

Respectfully/submitted,

Thomas N. Giaccherini,

Applicants' Attorney

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Transmitted to the United States Patent Office by First Class Mail on Thursday 14 July 2005 with a Rule 8 Certificate.

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the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known te for form 1449/PTO **Application Number** 10/779,869 INFORMATION DISCLOSURE Filing Date 17 February 2004 STATEMENT BY APPLICANT **First Named Inventor** D'Ausilio Art Unit 3643 (Use as many sheets as necessary) **Examiner Name** Swiatek Sheet Attorney Docket Number One of Two IOS9601CIPD

		NON PATENT LITERATURE DOCUMENTS	
Examiner Initials*	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	3A	LENARD Insterstellar Rendezvous	
	3B	LENARD Recent Progress	
	3C	GODFROY Realistic Development	
	3D	LENARD Technology Needs	
	3E	LIPINSKI A Gas-Cooled Reactor	
	3F	LIPINSKI Small Fission Power Systems for NEP	
	3G	LIPINSKI Small Fission Power Systems for Mars	
	ЗН	LIPINSKI NEP for a Kuiper Belt Object	
	31	LIPINSKI Fission-Based Electric Propulsion	
	3J	LENARD Power System Requirements	

Examiner	Date
Signature	Considered

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>1</sup> Applicant's unique citation designation number (optional). 2 Applicant is to place a check mark here if English language Translation is attached. This collection of information is required by 37 CFR 1.98. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 2 hours to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.



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Examiner	Cite No.1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of	
Initials*	No.¹	the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
	зк	LIPINSKI A Fission-Powered Interstellar Precursor Mission	
	3L	LENARD Fission Electric Propulsion with MagSail	
	ЗМ	LENARD Technical Aspects (Abstract Only- Paper Never Published)	
	3N	ORTIZ A Cost Analysis	
	30	EARLEY Reusable Space Tug Concepts	

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